

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A braking pressure control apparatus for controlling a pressure of a working fluid in a brake cylinder of a hydraulically operated brake in a hydraulically operated braking system for a vehicle, said braking pressure control apparatus comprising:

a first hydraulic pressure source including a power-operated pressurizing device for pressurizing the fluid;

a second hydraulic pressure source operable by an operation of a manually operable brake operating member, to pressurize the fluid to a pressure higher than a level corresponding to an operating force acting on said brake operating member;

a switching device for selectively placing the braking system in a first operating state in which said brake cylinder is operated with the pressurized fluid delivered from said first hydraulic pressure source while said brake cylinder is disconnected from said second hydraulic pressure source, and a second operating state in which said brake cylinder is operated with the pressurized fluid delivered from said second hydraulic pressure source while said brake cylinder is disconnected from said first hydraulic pressure source; and

at least one of (a) a change restricting means operable upon a switching of the braking system between said first and second operating states by said switching device, to restrict at least one of a change of an operating state of said brake operating member and a change of the fluid pressure in said brake cylinder, which changes take place due to said switching, and (b) a switching control device operable to control said switching device on the basis of a running condition of said vehicle, wherein said running condition of the vehicle is represented by at least one value selected from the group consisting of: a value indicating a

slipping state of said wheel; a yaw rate of the vehicle; a steering angle of the vehicle; a running speed of the vehicle; a deceleration value of the vehicle; a value indicating an environment of the vehicle; and values indicating operating states of manually operable members provided on the vehicle ~~while said vehicle is placed in a normal state.~~

2-21. (Withdrawn)

22-23. (Canceled).

24. (Currently Amended) A braking pressure control apparatus according to claim 1, wherein said change restricting ~~device~~ means comprises a pressure-difference reducing device operable to reduce a difference between the fluid pressure in said brake cylinder and the pressure of the fluid pressurized by said second hydraulic pressure source, when the braking system is switched between said first and second operating states by said switching device.

25. (Currently Amended) A braking pressure control apparatus according to claim 1, wherein said change restricting ~~device~~ means comprises a flow-amount reducing device operable to reduce amounts of flow of the fluid between said second hydraulic pressure source and said brake cylinder when the braking system is switched between said first and second operating states by said switching device.

26. (Currently Amended) A braking pressure control apparatus according to claim 1, wherein said change restricting ~~device~~ means comprises a change-rate restricting device for restricting a rate of change of the fluid pressure in said brake cylinder when the braking system is switched between said first and second operating states by said switching device.

27. (Withdrawn).

28. (Currently Amended) A braking pressure control apparatus according to claim 1, wherein said change restricting ~~device~~ means comprises a control-state-change restricting device operable to restrict a change in a control characteristic of the fluid pressure in said

brake cylinder when the braking system is switched between said first and second operating states by said switching device.

29. (Withdrawn).

30. (Withdrawn).

31. (Currently Amended) A braking pressure control apparatus according to claim 1, wherein said change restricting ~~device~~means comprises a modified-pressure-control device operable to control the fluid pressure in said brake cylinder during the switching of the braking system by said switching device, in a manner different from normal manners in which the fluid pressure in the brake cylinder is controlled in said first and second operating states.

32. (Currently Amended) A braking pressure control apparatus according to claim 1, wherein said change restricting ~~device~~means comprises a forecasting-type change restricting device operable to initiate an operation to restrict at least one of a change of an operating state of said brake operating member and a change of the fluid pressure in said brake cylinder, upon detection of a symptom indicating a high degree of probability that the braking system is switched between said first and second operating states by said switching device.

33-36. (Withdrawn).

37. (Previously Presented) A braking pressure control apparatus according to claim 1, wherein said switching device includes a selectively cutting-off device operable between a first cut-off state in which said brake cylinder is communicated with said first hydraulic pressure source and is disconnected from said second hydraulic pressure source, and a second cut-off state in which said brake cylinder is communicated with said second hydraulic pressure source and is disconnected from said first hydraulic pressure source.

38. (Currently Amended) A braking pressure control apparatus according to claim 1, wherein said hydraulically operated brake is provided for braking a wheel of a the vehicle, .

and said switching control device command said switching device to establish said first state, when ~~a~~the running condition of said vehicle requires said brake cylinder to be operated with the pressurized fluid whose pressure does not corresponds to said operating force of said brake operating member.

39. (Currently Amended) A braking pressure control apparatus according to claim 1, wherein said hydraulically operated brake is provided for each of four wheels of ~~a~~the vehicle, and said switching control device commands said switching device to establish said first state, when ~~a~~the running condition of said vehicle does not require the brakes for the four wheels to be controlled in the same manner.

40. (Currently Amended) A braking pressure control apparatus according to claim 1, wherein said hydraulically operated brake is provided for braking a wheel of ~~a~~the vehicle, and said switching control device commands said switching device to establish said first state, when ~~a~~the running condition of said vehicle requires said brake cylinder to be operated with the pressurized fluid whose pressure is different from the pressure of the fluid pressurized by said second hydraulic pressure source.


41. (Currently Amended) A braking pressure control apparatus according to claim 33, wherein said hydraulically operated brake is provided for braking a wheel of ~~a~~the vehicle, and said switching control device is operable when said vehicle is permitted to run after having been inhibited from running to command said switching device to establish said second state, when said vehicle which has been inhibited from running is permitted to run.

42. (Currently Amended) A braking pressure control apparatus according to claim 1, wherein said hydraulically operated brake is provided for braking a wheel of ~~a~~the vehicle, and said switching control device commands said switching device to establish said second state, when said vehicle is stationary.

43. (Withdrawn)

44. (Previously Presented) A braking pressure control apparatus according to claim 1, further comprising a braking pressure control device operable when said first state is established by said switching device, to control the pressure of the pressurized fluid by which said brake cylinder is operated, on the basis of an operating amount of said brake operating member, and at least one of a rate of change of said operating amount and a derivative of said rate of change.

45. (Previously Presented) A braking pressure control apparatus according to claim 1, further comprising:

 a stroke simulator device operable to permit flows of the fluid to and from said second hydraulic pressure source, according to an operation of said brake operating member; and

a diagnosing device for diagnosing said stroke simulator device for any abnormality thereof,

and wherein said switching control device commands said switching device to establish said second state, when said diagnosing device determines that said stroke simulator device is abnormal.

46. (Previously Presented) A braking pressure control apparatus according to claim 1, further comprising:

a brake-operating-state detecting device for detecting an operating state of said brake operating member;

a diagnosing device for diagnosing said brake-operating-state detecting device for any abnormality thereof; and

a first-pressure-source control device for controlling the pressure of the fluid pressurized by said first hydraulic pressure source, on the basis of an output signal of said brake-operating-state detecting device,

and wherein said switching control device commands said switching device to establish said second state, when said diagnosing device determines that said brake-operating-state detecting device is abnormal.

47. (Previously Presented) A braking pressure control apparatus according to claim 1, further comprising:

a stroke detecting device for detecting an operating stroke of said brake operating member;

a force detecting device for detecting said operating force of said brake operating member;

a diagnosing device for diagnosing said stroke detecting device and said force detecting device for any abnormality thereof;

a first pressure control device operable when said stroke detecting device and said force detecting device are normal, to control the pressure of the pressurized fluid by which said brake cylinder is operated, on the basis of both the operating stroke and the operating force which are respectively detected by said stroke detecting device and said force detecting device; and

a second pressure control device operable when one of said stroke detecting device and said force detecting device is abnormal, to control the pressure of the pressurized fluid by said brake cylinder is operated, on the basis of an output signal of the other of said stroke detecting device and said force detecting device.

48. (Previously Presented) A braking pressure control apparatus according to claim 1, further comprising:

a plurality of operating-state detecting devices for detecting an operating state of said brake operating member;

a diagnosing device for diagnosing each of said plurality of operating-state detecting devices for any abnormality thereof;

a first pressure control device operable when said plurality of operating-state detecting devices are normal, to control the pressure of the fluid pressurized by said first hydraulic pressure source on the basis of at least one of output signals of said plurality of operating-state detecting devices; and

a second pressure control device operable when at least one of said plurality of operating-state detecting devices is normal and when at least one of said plurality of operating-state detecting devices is abnormal, to control the pressure of the fluid pressurized by said first hydraulic pressure source, on the basis of an output signal of said at least one operating-state detecting device which is normal.

49. (Previously Presented) A braking pressure control apparatus according to claim 1, which is provided for controlling the pressure of the pressurized fluid in each of a plurality of brake cylinders of a plurality of brakes, and wherein said first hydraulic pressure source includes a plurality of pressure control valve devices which are operable independently of each other to control the pressures of the pressurized fluid in said plurality of brake cylinders, on the basis of the fluid pressurized by said pressurizing device, said braking pressure control apparatus further comprising:

a plurality of braking-pressure detecting devices for detecting the pressure in said plurality of brake cylinders, respectively;

a diagnosing device for diagnosing each of said braking-pressure detecting devices for any abnormality thereof;

a connecting passage connecting two of said plurality of brake cylinders;

a communicating valve provided in said connecting passage;

a first pressure control device operable when said plurality of braking-pressure detecting devices are all normal, to control said plurality of pressure control valve devices on the basis of the pressures detected by said braking-pressure detecting devices; and

a second pressure control device operable when one of said plurality of braking-pressure control devices is abnormal and when the braking-pressure detecting device corresponding to the brake cylinder connected through said connecting passage to the brake cylinder corresponding to said abnormal braking-pressure detecting device is normal, said second pressure control device controlling the two pressure control valve devices connected to each other by said connecting passage, on the basis of the pressure detected by the normal braking-pressure detecting device, while said communicating valve in said connecting passage is open.

50. (Previously Presented) A braking pressure control apparatus according to claim 1, which is provided for controlling the pressure of the pressurized fluid in each of a plurality of brake cylinders of a plurality of brakes, and wherein said first hydraulic pressure source includes a plurality of pressure control valve devices which are operable independently of each other to control the pressures of the pressurized fluid in said plurality of brake cylinders, on the basis of the fluid pressurized by said pressurizing device, said braking pressure control apparatus further comprising:

a diagnosing device for diagnosing each of said pressure control valve devices for any abnormality thereof;

a connecting passage connecting two of said plurality of brake cylinders;

a communicating valve provided in said connecting passage;

a first pressure control device operable when said plurality of pressure control valve devices are all normal, to control the pressures in said plurality of brake cylinders, by controlling said plurality of pressure control valve devices, respectively; and

a second pressure control device operable when said diagnosing device determines that at least one of said plurality of pressure control valve is abnormal and when the pressure control valve device corresponding to the brake cylinder connected through said connecting passage to the brake cylinder corresponding to said abnormal pressure control valve device is normal, said second pressure control device controlling the pressures in the two brake cylinders connected to each other by said connecting passage, by controlling the normal pressure control valve device, while said communicating valve in said connecting passage is open.

51. (Previously Presented) A braking pressure control apparatus to according to claim 1, which is provided for controlling the pressure of the pressurized fluid in each of four brake cylinders of four brakes, and wherein said first hydraulic pressure source includes four pressure control valve devices which are operable independently of each other to control the pressures of the pressurized fluid in said four brake cylinders, on the basis of the fluid pressurized by said pressurizing device, said braking pressure control apparatus further comprising:

a diagnosing device for diagnosing each of said four pressure control valve devices for any abnormality thereof;

a first pressure control device operable when said four pressure control valve devices are all normal, to control the pressures in said plurality of brake cylinders, by controlling said four pressure control valve devices, respectively; and

a second pressure control device operable when said diagnosing device determines that one of said four pressure control valve device is abnormal, to control the pressure in each of the brake cylinders corresponding to the normal pressure control valve devices, by controlling said normal pressure control valve devices, while the brake cylinder

corresponding to the abnormal pressure control valve device is disconnected from both of said first and second hydraulic pressure sources.

52. (Canceled)

53-55. (Withdrawn)

56. (Canceled)

57. (Canceled)